

**Does Not Comply** 

Corrected Diskette Needed

OIPE

RAW SEQUENCE LISTING DATE: 06/06/2002 PATENT APPLICATION: US/10/017,066A TIME: 14:37:38

Input Set : D:\51158-20024.txt

Output Set: N:\CRF3\06062002\J017066A.raw

4 <110> APPLICANT: Arthur B. Raitano ran 5 Daniel E.H. Afar 6 Aya Jakobovits 7 Mary Faris 8 Rene S. Hubert 9 Steve Chappell Mitchell 10 Douglas C. Saffran 12 <120> TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTOR UP-REGULATED IN PROSTATE CANCER AND USES THEREOF 16 <130> FILE REFERENCE: 511582002410 18 <140> CURRENT APPLICATION NUMBER: US 10/017,066A 00-> 19 <141> CURRENT FILING DATE: 2002-05-28 21 <150> PRIOR APPLICATION NUMBER: US 09/680,728 W--> 22 <del><150></del> PRIOR APPLICATION NUMBER: 2000-10-05 W--> 24 <150> PRIOR APPLICATION NUMBER: 60/157,902 25 <151> PRIOR FILING DATE: 1999-10-05 27 <160> NUMBER OF SEQ ID NOS: 50 29 <170> SOFTWARE: FastSEQ for Windows Version 4.0 31 <210> SEO ID NO: 1 32 <211> LENGTH: 3136 33 <212> TYPE: DNA 34 <213> ORGANISM: Homo Sapiens 36 <220> FEATURE: 37 <221> NAME/KEY: CDS 38 <222> LOCATION: (133)...(1083) 40 <400> SEQUENCE: 1 41 cagagagget gtatttcagt gcagcetgee agacetette tggaggaaga etggacaaag 60 42 ggggtcacac attectteca taeggttgag ectetacetg cetggtgetg gteacagtte 120 43 agettettea tg atg gtg gat eee aat gge aat gaa tee agt get aca tae 171 44 Met Val Asp Pro Asn Gly Asn Glu Ser Ser Ala Thr Tyr 45 47 ttc atc cta ata ggc ctc cct ggt tta gaa gag gct cag ttc tgg ttg 219 48 Phe Ile Leu Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe Trp Leu 15 20 51 gcc ttc cca ttg tgc tcc ctc tac ctt att gct gtg cta ggt aac ttg 267 52 Ala Phe Pro Leu Cys Ser Leu Tyr Leu Ile Ala Val Leu Gly Asn Leu 35 55 aca atc atc tac att gtg cgg act gag cac agc ctg cat gag ccc atg 315 56 Thr Ile Ile Tyr Ile Val Arg Thr Glu His Ser Leu His Glu Pro Met 59 tat ata ttt ctt tgc atg ctt tca ggc att gac atc ctc atc tcc acc 363 60 Tyr Ile Phe Leu Cys Met Leu Ser Gly Ile Asp Ile Leu Ile Ser Thr

61

RAW SEQUENCE LISTING DATE: 06/06/2002 PATENT APPLICATION: US/10/017,066A TIME: 14:37:38

Input Set : D:\51158-20024.txt

63	tca	tcc	atg	ccc	aaa	atg	ctg	gcc	atc	ttc	tgg	ttc	aat	tcc	act	acc	411
	Ser	Ser		Pro	Lys	Met	Leu		Ile	Phe	Trp	Phe		Ser	Thr	$\mathtt{Thr}\cdot$	
65			80			4		85					90				
									cag								459
69	TTE		Pne	ASP	Ата	Cys		Leu	Gln	тте	Pne		тте	His	Ser	Leu	
	+ a+	95	+ ~	~~~	+ ~ ~		100	~+~				105					507
									ctg Leu								507
	110	СТУ	Mec	GIU	ser	1115	vaı	ьеu	ьеи	нта	120	нта	Pne	ASP	Arg	_	
		acc.	atc	tat	cac		cta	cac	cat	acc		αta	att	200	++~	125	555
									His								333
77			110	0,0	130	110	Lcu	1119	1113	135	1111	Vul	пец	1111	140	FIO	
	cat	atc	acc	aaa		aat.	at.a	act.	gct		ata	caa	aaa	act		cta	603
80	Arq	Val	Thr	Lvs	Ile	Glv	Val	Ala	Ala	Val	Val	Ara	Glv	Ala	Ala	Len	003
81	,			145		1			150			5	0-1	155		Leu	
83	atg	gca	ccc	ctt	cct	gtc	ttc	atc	aag	caq	ctq	ccc	ttc		cac	tcc	651
									Lys								
85			160					165	-				170	•	,		
87	aat	atc	ctt	tcc	cat	tcc	tac	tgc	cta	cac	caa	gat	gtc	atg	aaq	ctg	699
88	Asn	Ile	Leu	Ser	His	Ser	Tyr	Cys	Leu	His	Gln	Asp	Val	Met	Lys	Leu	
89		175					180		•			185			_		
									gtc								747
		Cys	Asp	Asp	Ile	Arg	Val	Asn	Val	Val	Tyr	Gly	Leu	Ile	Val	Ile	
	190					195					200					205	
									ctt								795
	Ile	Ser	Ala	Ile		Leu	Asp	Ser	Leu		Ile	Ser	Phe	Ser		Leu	
97					210					215					220		
									ttg								843
101		TTE	: red			. vaı	. Leu	GTZ			Arg	GIU	ı Ala			Lys	
		+++	~~~	225		· ~+ ~	. + a+	an+	230		+			235		tat	0.01
																tat Tyr	891
105		. 1110	240		Cys	, vai	. Der	245		Cys	, Ala	vaı	. Phe		PHE	TAT	
		cct			дда	tta	tee			cat	cac	+++				cgt	939
108	Val	Pro	Phe	Tle	Glv	Len	Ser	Met	. Val	His	. Cyc	Dhe	. ayc	T.ve	Lyy ΣΔra	Arq	232
109		255			011		260		. , , ,		, ,,,,	265		шуз	nry	ALG	
				cta	ccc	ato			acc	aat	ato			cta	att	cct	987
																Pro	507
	270					275					280					285	
115	cct	gtg	ctc	aac	cca	att	gtc	tat	gga	gtg			aag	qaq	att	cga	1035
116	Pro	Val	Leu	Asn	Pro	Ile	Val	Tyr	Gly	Val	Lys	Thr	Lys	Ğlu	Ile	Arg	
117					290			_		295			-		300	_	
119	cag	cgc	atc	ctt	cga	ctt	ttc	cat	gtg	gcc	aca	cac	gct	tca	gag	ccc	1083
120	Gln	Arg	Ile	Leu	Arg	Leu	Phe	His	Val	Ala	Thr	His	Ala	Ser	Glu	Pro	
121				305					310					315			
123	tag	gtgt	cag	tgat	caaa	ct t	cttt	tcca	t tc	agag	tcct	ctg	attc	aga	tttt	aatgtt	1143
																tcagat	1203
125	cct	tcaa	ata	tgaa	actg	gt t	gggg	aatc	t cc	attt	tttc	aat	atta	ttt	tctt	ctttgt	1263
126	ttt	cttg	cta	cata	taat	ta t	taat	accc	t ga	ctag	gttg	tgg	ttgg	agg	gtta	ttactt	1323

RAW SEQUENCE LISTING DATE: 06/06/2002 PATENT APPLICATION: US/10/017,066A TIME: 14:37:38

Input Set : D:\51158-20024.txt

```
127 ttcattttac catgcagtcc aaatctaaac tgcttctact gatggtttac agcattctga
                                                                        1383
128 gataaqaatg gtacatctag agaacatttg ccaaaggcct aagcacggca aaggaaaata
                                                                        1443
129 aacacaqaat ataataaaat qagataatct agcttaaaac tataacttcc tcttcagaac
                                                                        1503
130 toccaaccae attggatete agaaaaatge tgtetteaaa atgaetteta cagagaagaa
                                                                        1563
131 ataatttttc ctctggacac tagcacttaa ggggaagatt ggaagtaaag ccttgaaaag
                                                                        1623
132 agtacattta cctacgttaa tgaaagttga cacactgttc tgagagtttt cacagcatat
                                                                        1683
133 ggaccctgtt tttcctattt aattttctta tcaacccttt aattaggcaa agatattatt
                                                                        1743
134 agtaccetca ttgtagecat gggaaaattg atgtteagtg gggateagtg aattaaatgg
                                                                        1803
135 ggtcatacaa gtataaaaat taaaaaaaaa aaagacttca tgcccaatct catatgatgt
                                                                       1863
                                                                        1923
136 qqaaqaactq ttaqaqagac caacagggta gtgggttaga gatttccaga gtcttacatt
137 ttctagagga ggtatttaat ttcttctcac tcatccagtg ttgtatttag gaatttcctg
                                                                        1983
138 gcaacagaac teatggettt aateceacta getattgett attgteetgg tecaattgee
                                                                        2043
                                                                        2103
139 aattacctqt qtcttqqaaq aagtgatttc taggttcacc attatggaag attcttattc
140 agaaagtctq catagggctt atagcaagtt atttattttt aaaagttcca taggtgattc
                                                                        2163
                                                                        2223
141 tqataqqcaq tqaqqttaqq qaqccaccaq ttatqatqqq aagtatggaa tggcaggtct
142 tqaaqataac attqqccttt tqaqtqtqac tcqtaqctqq aaaqtqaqqq aatcttcaqq
                                                                        2283
143 accatecttt attteggget ttegtecagta tegaacageg actttegagac cagegaaagca
                                                                        2343
144 atctgactta ggcatgggaa tcaggcattt ttgcttctga ggggctatta ccaagggtta
                                                                        2403
145 ataggtttca tcttcaacag gatatgacaa cagtgttaac caagaaactc aaattacaaa
                                                                        2463
146 tactaaaaca tgtgatcata tatgtggtaa gtttcatttt ctttttcaat cctcaggttc
                                                                        2523
                                                                        2583
147 cctgatatgg attcctataa catqctttca tccccttttg taatggatat catatttgga
148 aatgcctatt taatacttgt atttgctgct ggactgtaag cccatgaggg cactgtttat
                                                                        2643
149 tattgaatgt catctctgtt catcattgac tgctctttgc tcatcattga atcccccagc
                                                                        2703
150 aaagtgeeta gaacataata gtgettatge ttgacacegg ttatttttca tcaaacetga
                                                                        2763
151 ttccttctqt cctgaacaca tagccaggca attttccagc cttctttgag ttgggtatta
                                                                        2823
152 ttaaattctg gccattactt ccaatgtgag tggaagtgac atgtgcaatt tctatacctg
                                                                        2883
153 gctcataaaa ccctcccatg tgcagccttt catgttgaca ttaaatgtga cttgggaagc
                                                                        2943
                                                                        3003
154 tatqtqttac acagagtaaa tcaccagaag cctggatttc tgaaaaaact gtgcagagcc
155 aaacctctgt catttgcaac tcccacttgt atttgtacga ggcagttgga taagtgaaaa
                                                                        3063
3123
                                                                        3136
157 aaaaaaaaaa aaa
159 <210> SEQ ID NO: 2
160 <211> LENGTH: 317
161 <212> TYPE: PRT
162 <213> ORGANISM: Homo Sapiens
164 <400> SEQUENCE: 2
165 Met Val Asp Pro Asn Gly Asn Glú Ser Ser Ala Thr Tyr Phe Ile Leu
166
167 Ile Gly Leu Pro Gly Leu Glu Glu Ala Gln Phe Trp Leu Ala Phe Pro
168
               20
169 Leu Cys Ser Leu Tyr Leu Ile Ala Val Leu Gly Asn Leu Thr Ile Ile
                               40
171 Tyr Ile Val Arg Thr Glu His Ser Leu His Glu Pro Met Tyr Ile Phe
                           55
172
173 Leu Cys Met Leu Ser Gly Ile Asp Ile Leu Ile Ser Thr Ser Ser Met
174 65
175 Pro Lys Met Leu Ala Ile Phe Trp Phe Asn Ser Thr Thr Ile Gln Phe
176
                   85
                                       90
177 Asp Ala Cys Leu Leu Gln Ile Phe Ala Ile His Ser Leu Ser Gly Met
```

RAW SEQUENCE LISTING DATE: 06/06/2002 PATENT APPLICATION: US/10/017,066A TIME: 14:37:38

Input Set : D:\51158-20024.txt

178				100					105					110		
	Glu	Ser	Thr	Val	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile
180			115					120			_	-	125			
181	Cys	His		Leu	Arq	His	Ala	Thr	Val	Leu	Thr	Leu	Pro	Arg	Val	Thr
182	_	130			_		135					140				
183	Lys	Ile	Gly	Val	Ala	Ala	Val	Val	Arg	Gly	Ala	Ala	Leu	Met	Ala	Pro
	145		• •			150	•	-	_	•	155					160
185	Leu	Pro	Val	Phe	Ile	Lys	Gln	Leu	Pro	Phe	Cys	Arg	Ser	Asn	Ile	Leu
186					165	•				170	-				175	
	Ser	His	Ser	Tyr	Cys	Leu	His	Gln	Asp	Val	Met	Lys	Leu	Ala	Cys	Asp
188				180	•				185			-		190		
189	Asp	Ile	Arq	Val	Asn	Val	Val	Tyr	Gly	Leu	Ile	Val	Ile	Ile	Ser	Ala
190	_		195					200	_				205			
		Gly	Leu	Asp	Ser	Leu	Leu	Ile	Ser	Phe	Ser	Tyr	Ĺeu	Leu	Ile	Leu
192		210		_			215					220				
193	Lys	Thr	Val	Leu	Gly	Leu	Thr	Arg	Glu	Ala	Gln	Ala	Lys	Ala	Phe	Gly
	225					230					235					240
195	Thr	Cys	Val	Ser	His	Val	Cys	Ala	Val	Phe	Ile	Phe	Tyr	Val	Pro	Phe
196		_			245		_			250					255	
197	Ile	Gly	Leu	Ser	Met	Val	His	Arg	Phe	Ser	Lys	Arg	Arg	Asp	Ser	Pro
198				260					265	-				270		
199	Leu	Pro	Val	Ile	Leu	Ala	Asn	Ile	Tyr	Leu	Leu	Val	Pro	Pro	Val	Leu
200			275					280					285			
201	Asn	Pro	Ile	Val	Tyr	Gly	Val	Lys	Thr	Lys	Glu	Ile	Arg	Gln	Arg	Ile
202		290					295					300				
203	Leu	Arg	Leu	Phe	His	Val	Ala	Thr	His	Ala	Ser	Glu	Pro			
	Leu 305	Arg	Leu	Phe	His	Val 310	Ala	Thr	His	Ala	Ser 315	Glu	Pro			
204		_					Ala	Thr	His	Ala		Glu	Pro			
204 206	305	)> SI	EQ II	ОИС	: 3		Ala	Thr	His	Ala		Glu	Pro			
204 206 207	305 <210	)> SI l> LI	EQ II ENGTI	O NO H: 32	: 3		Ala	Thr	His	Ala		Glu	Pro			
204 206 207 208 209	305 <210 <211 <211 <211	0> SI l> LI 2> TY 3> OF	EQ II ENGTI YPE: RGANI	O NO H: 32 PRT ISM:	: 3 20 Rat	310		Thr	His	Ala		Glu	Pro			
204 206 207 208 209 211	305 <210 <211 <211 <211 <400	0> SI l> LI 2> TY 3> OI 0> SI	EQ II ENGTI ZPE: RGANI EQUEI	O NO H: 32 PRT ISM: NCE:	: 3 20 Rat 3	310 Prof	tein	4			315					
204 206 207 208 209 211	305 <210 <211 <211 <211 <400	0> SI l> LI 2> TY 3> OI 0> SI Ser	EQ II ENGTI ZPE: RGANI EQUEI Ser	O NO H: 32 PRT ISM: NCE: Cys	: 3 20 Rat 3 Asn	310 Prof	tein	4			315			Ile	Gly	Ile
204 206 207 208 209 211 212 213	305 <210 <211 <211 <400 Met	0> SI l> LI 2> TI 3> OI 0> SI Ser	EQ II ENGTI YPE: RGANI EQUEI Ser	O NO H: 32 PRT ISM: NCE: Cys	: 3 20 Rat 3 Asn	310 Prot	tein Thr	His	Ala	Thr 10	315	Met	Leu		15	
204 206 207 208 209 211 212 213 214	305 <210 <211 <211 <400 Met	0> SI l> LI 2> TI 3> OI 0> SI Ser	EQ II ENGTI YPE: RGANI EQUEI Ser	O NO H: 32 PRT ISM: NCE: Cys	: 3 20 Rat 3 Asn	310 Prot	tein Thr	His	Ala Trp	Thr 10	315	Met	Leu	Leu		
204 206 207 208 209 211 212 213 214 215	305 <210 <211 <211 <400 Met 1 Pro	0> SI 1> LI 2> TY 3> OH 0> SI Ser	EQ II ENGTI YPE: RGANI EQUEI Ser Leu	PRT ISM: CYS Glu 20	: 3 20 Rat 3 Asn 5 Glu	Prot	tein Thr His	His Phe	Ala Trp 25	Thr 10 Phe	315 Phe Gly	Met Phe	Leu Pro	Leu 30	15 Leu	Ser
204 206 207 208 209 211 212 213 214 215 216	305 <210 <211 <211 <400 Met 1 Pro	0> SI 1> LI 2> TY 3> OH 0> SI Ser	EQ II ENGTI YPE: RGAN: EQUEI Ser Leu Ala	PRT ISM: CYS Glu 20	: 3 20 Rat 3 Asn 5 Glu	Prot	tein Thr His	His Phe Gly	Ala Trp 25	Thr 10 Phe	315 Phe Gly	Met Phe	Leu Pro Val	Leu 30	15	Ser
204 206 207 208 209 211 212 213 214 215 216 217	305 <210 <211 <211 <400 Met 1 Pro	0> SI 1> LI 2> TY 3> OI 0> SI Ser Gly	EQ III ENGTH YPE: RGAN: EQUEN Ser Leu Ala 35	PRT ISM: CYS Glu 20 Val	Rat 3 Asn 5 Glu	Prot Phe Ala Leu	tein Thr His Phe	His Phe Gly 40	Ala Trp 25 Asn	Thr 10 Phe Cys	315 Phe Gly Ile	Met Phe Val	Leu Pro Val 45	Leu 30 Phe	15 Leu Ile	Ser Val
204 206 207 208 209 211 212 213 214 215 216 217 218	305 <210 <211 <211 <400 Met 1 Pro Met	0> Si 1> Li 2> TY 3> Oi 3> Ser Gly Tyr	EQ III ENGTI YPE: RGANI EQUEI Ser Leu Ala 35 Glu	O NO H: 32 PRT ISM: CYS Glu 20 Val	Rat 3 Asn 5 Glu Ala	Prot Phe Ala Leu	tein Thr His Phe	His Phe Gly 40 Ala	Ala Trp 25 Asn Pro	Thr 10 Phe Cys	315 Phe Gly Ile	Met Phe Val Leu	Leu Pro Val 45 Phe	Leu 30 Phe	15 Leu	Ser Val
204 206 207 208 209 211 212 213 214 215 216 217 218 219	305 <210 <211 <211 <400 Met 1 Pro Met	0> SI 1> LI 2> TY 3> OI 0> SI Ser Gly Tyr Thr 50	EQ II ENGTI YPE: RGAN: EQUEN Ser Leu Ala 35 Glu	PRT ISM: CYS Glu 20 Val	Rat 3 Asn 5 Glu Ala	Prot Phe Ala Leu Leu	Thr His Phe His	His Phe Gly 40 Ala	Ala Trp 25 Asn Pro	Thr 10 Phe Cys Met	Phe Gly Ile Tyr	Met Phe Val Leu 60	Leu Pro Val 45 Phe	Leu 30 Phe Leu	15 Leu Ile Cys	Ser Val Met
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220	305 <210 <211 <211 <400 Met 1 Pro Met Arg	0> SI 1> LI 2> TY 3> OI 0> SI Ser Gly Tyr Thr 50	EQ II ENGTI YPE: RGAN: EQUEN Ser Leu Ala 35 Glu	PRT ISM: CYS Glu 20 Val	Rat 3 Asn 5 Glu Ala	Prot Phe Ala Leu Leu	Thr His Phe His	His Phe Gly 40 Ala	Ala Trp 25 Asn Pro	Thr 10 Phe Cys Met	Phe Gly Ile Tyr Ser	Met Phe Val Leu 60	Leu Pro Val 45 Phe	Leu 30 Phe Leu	15 Leu Ile Cys	Ser Val Met Ile
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221	305 <210 <211 <211 <400 Met 1 Pro Met Arg Leu 65	0> SI 1> LI 2> TY 3> OI 0> SI Ser Gly Tyr Thr 50 Ala	EQ II ENGTH YPE: RGAN: EQUEN Ser Leu Ala 35 Glu Ala	PRT ISM: Cys Glu 20 Val Arg	Rat 3 Asn 5 Glu Ala Ser	Prot Phe Ala Leu Leu Leu 70	Thr His Phe His 55 Ala	His Phe Gly 40 Ala Leu	Ala Trp 25 Asn Pro Ser	Thr 10 Phe Cys Met	Phe Gly Ile Tyr Ser 75	Met Phe Val Leu 60 Thr	Leu Pro Val 45 Phe Met	Leu 30 Phe Leu Pro	15 Leu Ile Cys Lys	Ser Val Met Ile 80
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221 222	305 <210 <211 <211 <400 Met 1 Pro Met Arg Leu 65	0> SI 1> LI 2> TY 3> OI 0> SI Ser Gly Tyr Thr 50 Ala	EQ II ENGTH YPE: RGAN: EQUEN Ser Leu Ala 35 Glu Ala	PRT ISM: Cys Glu 20 Val Arg	Rat 3 Asn 5 Glu Ala Ser Asp	Prot Phe Ala Leu Leu Leu 70	Thr His Phe His 55 Ala	His Phe Gly 40 Ala Leu	Ala Trp 25 Asn Pro Ser	Thr 10 Phe Cys Met Thr	Phe Gly Ile Tyr Ser 75	Met Phe Val Leu 60 Thr	Leu Pro Val 45 Phe Met	Leu 30 Phe Leu Pro	15 Leu Ile Cys Lys Ala	Ser Val Met Ile 80
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221 222 223	305 <210 <211 <211 <400 Met 1 Pro Met Arg Leu 65 Leu	O> SI l> LI 2> TY 3> OI O> SI Ser Gly Tyr Thr 50 Ala	EQ II ENGTH YPE: RGANI EQUEN Ser Leu Ala 35 Glu Ala Leu	PRT ISM: Cys Glu 20 Val Arg	Rat 3 Asn 5 Glu Ala Ser Asp Trp 85	Prot Phe Ala Leu Leu To Phe	Thr His Phe His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Ala Trp 25 Asn Pro Ser Arg	Thr 10 Phe Cys Met Thr Glu 90	Phe Gly Ile Tyr Ser 75 Ile	Met Phe Val Leu 60 Thr	Leu Pro Val 45 Phe Met	Leu 30 Phe Leu Pro	15 Leu Ile Cys Lys Ala 95	Ser Val Met Ile 80 Cys
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221 222 223 224	305 <210 <211 <211 <400 Met 1 Pro Met Arg Leu 65 Leu	O> SI l> LI 2> TY 3> OI O> SI Ser Gly Tyr Thr 50 Ala	EQ II ENGTH YPE: RGANI EQUEN Ser Leu Ala 35 Glu Ala Leu	PRT ISM: CYS Glu 20 Val Arg Ile Phe	Rat 3 Asn 5 Glu Ala Ser Asp Trp 85	Prot Phe Ala Leu Leu To Phe	Thr His Phe His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Ala Trp 25 Asn Pro Ser Arg	Thr 10 Phe Cys Met Thr Glu 90	Phe Gly Ile Tyr Ser 75 Ile	Met Phe Val Leu 60 Thr	Leu Pro Val 45 Phe Met	Leu 30 Phe Leu Pro Asp	15 Leu Ile Cys Lys Ala	Ser Val Met Ile 80 Cys
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225	305 <210 <211 <400 Met 1 Pro Met Arg Leu 65 Leu	O> SI l> LI 2> TY 3> OB O> SI Ser Gly Tyr Thr 50 Ala Ala	EQ II ENGTH YPE: RGANI EQUEN Ser Leu Ala 35 Glu Ala Leu Gln	O NO. H: 32 PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100	Rat 3 Asn 5 Glu Ala Ser Asp Trp 85 Phe	Prot Phe Ala Leu Leu Phe Phe	tein Thr His Phe His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Ala Trp 25 Asn Pro Ser Arg Ala 105	Thr 10 Phe Cys Met Thr Glu 90 Leu	Phe Gly Ile Tyr Ser 75 Ile Ser	Met Phe Val Leu 60 Thr Thr	Leu Pro Val 45 Phe Met Phe	Leu 30 Phe Leu Pro Asp Glu 110	15 Leu Ile Cys Lys Ala 95 Ser	Ser Val Met Ile 80 Cys Thr
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226	305 <210 <211 <400 Met 1 Pro Met Arg Leu 65 Leu	O> SI l> LI 2> TY 3> OB O> SI Ser Gly Tyr Thr 50 Ala Ala	EQ II ENGTH YPE: RGANI EQUEN Ser Leu Ala 35 Glu Ala Leu Gln Leu	O NO. H: 32 PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100	Rat 3 Asn 5 Glu Ala Ser Asp Trp 85 Phe	Prot Phe Ala Leu Leu Phe Phe	tein Thr His Phe His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser His Asp	Ala Trp 25 Asn Pro Ser Arg Ala 105	Thr 10 Phe Cys Met Thr Glu 90 Leu	Phe Gly Ile Tyr Ser 75 Ile Ser	Met Phe Val Leu 60 Thr Thr	Leu Pro Val 45 Phe Met Phe Ile	Leu 30 Phe Leu Pro Asp Glu 110	15 Leu Ile Cys Lys Ala 95	Ser Val Met Ile 80 Cys Thr
204 206 207 208 209 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227	305 <210 <211 <400 Met 1 Pro Met Arg Leu 65 Leu Leu	O> SI l> LI 2> TY 3> OF O> SI SET Gly Tyr Thr 50 Ala Ala Ala Leu	EQ II ENGTH YPE: RGANI EQUEN Ser Leu Ala 35 Glu Ala Leu Gln Leu 115	PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100 Ala	Rat 3 Asn 5 Glu Ala Ser Asp Trp 85 Phe Met	Prot Phe Ala Leu Leu Phe Phe Ala	tein Thr His Phe His 55 Ala Asp Ile Phe	His Phe Gly 40 Ala Leu Ser His Asp	Ala Trp 25 Asn Pro Ser Arg Ala 105 Arg	Thr 10 Phe Cys Met Thr Glu 90 Leu	Phe Gly Ile Tyr Ser 75 Ile Ser Val	Met Phe Val Leu 60 Thr Thr Ala	Leu Pro Val 45 Phe Met Phe Ile Ile 125	Leu 30 Phe Leu Pro Asp Glu 110 Cys	15 Leu Ile Cys Lys Ala 95 Ser	Ser Val Met Ile 80 Cys Thr

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/017,066A

DATE: 06/06/2002
TIME: 14:37:38

Input Set : D:\51158-20024.txt

		130					135					140				
230			Ala	Leu	Val	Arg	Gly	Ser	Leu	Phe	Phe	Phe	Pro	Leu	Pro	Leu
231	145					150					155					160
232	Leu	Ile	Lys	Arg	Leu	Ala	Phe	Cys	His	Ser	Asn	Val	Leu	Ser	His	Ser
233					165					170					175	
234	Tyr	Cys	Val	His	Gln	Asp	Val	Met	Lys	Leu	Ala	Tyr	Thr	Asp	Thr	Leu
235	_			180					185					190		
236	Pro	Asn	Val	Val	Tyr	Gly	Leu	Thr	Ala	Ile	Leu	Leu	Val	Met	Gly	Val
237			195					200					205			
238	Asp	Val	Met	Phe	Ile	Ser	Leu	Ser	Tyr	Phe	Leu	Ile	Ile	Arg	Ala	Val
239		210					215					220				
240	Leu	Gln	Leu	${\tt Pro}$	Ser	Lys	Ser	Glu	Arg	Ala	Lys	Ala	Phe	Gly	Thr	
241	225					230					235		•		_	240
242	Val	Ser	His	Ile	Gly	Val	Val	Leu	Ala		Tyr	Val	Pro	Leu		Gly
243					245					250			_		255	
244	Leu	Ser	Val		His	Arg	Phe	Gly		Ser	Leu	Asp	Pro	Ile	vaı	HlS
245				260		_			265	_	_	_	1	270	•	D
246	Val	Leu		Gly	Asp	Val	Tyr		Leu	Leu	Pro	Pro		Ile	Asn	Pro
247			275		_		_•	280		_ 1	_	m1	285	77- 1	T	31.
			Tyr	Gly	Ala	Lys		Lys	GIn	TTE	Arg		Arg	Val	ьеи	Ala
249		290			_	_	295	_	_	<b>-1.</b> .	<b>01</b>	300	<b>01</b>	<b>01</b>	7	mh w
		Phe	Lys	He	ser		Asp	ьуs	Asp	116	GIU	Ala	СТУ	Gly	ASII	320
	305					310					315					320
	<210															
フトル	<21	т> гі	ENGTI	1: 34	20											
	-011	۰. m	zna.													
255	<212			PRT		- Car	oi on	<b>~</b>								
255 256	<21	3> 01	RGAN	PRT ISM:	Homo	o Saj	pien	s								
255 256 258	<213 <40	3> 01 0> S1	RGAN: EQUEI	PRT ISM: NCE:	Homo				Δla	Thr	Cvs	Va 1	Leu	Ile	Glv	Ile
255 256 258 259	<21 <40 Met	3> 01 0> S1	RGAN: EQUEI	PRT ISM: NCE:	Homo 4 Asn				Ala		Cys	Val		Ile		Ile
255 256 258 259 260	<213 <400 Met	3> 01 0> S1 Ser	RGAN: EQUEI Ser	PRT ISM: NCE: Cys	Homo 4 Asn 5	Phe	Thr	His		10					15	
255 256 258 259 260 261	<21: <400 Met 1 Pro	3> 01 0> S1 Ser	RGAN: EQUEI Ser	PRT ISM: NCE: Cys Glu	Homo 4 Asn 5	Phe	Thr	His	Trp	10					15	
255 256 258 259 260 261 262	<213 <400 Met 1 Pro	3> 01 0> S1 Ser Gly	RGAN: EQUEI Ser Leu	PRT ISM: NCE: Cys Glu 20	Homo 4 Asn 5 Lys	Phe Ala	Thr	His Phe	Trp 25	10 Val	Gly	Phe	Pro	Leu 30	15 Leu	Ser
255 256 258 259 260 261 262 263	<21: <400 Met 1 Pro	3> 01 0> S1 Ser Gly	RGAN EQUEI Ser Leu Val	PRT ISM: NCE: Cys Glu 20	Homo 4 Asn 5 Lys	Phe Ala	Thr	His Phe	Trp 25	10 Val	Gly	Phe	Pro	Leu	15 Leu	Ser
255 256 258 259 260 261 262 263 264	<21: <400 Met 1 Pro	3> 01 0> S1 Ser Gly Tyr	RGANI EQUEI Ser Leu Val 35	PRT ISM: NCE: Cys Glu 20 Val	Homo 4 Asn 5 Lys	Phe Ala Met	Thr His Cys	His Phe Gly 40	Trp 25 Asn	10 Val Cys	Gly	Phe Val	Pro Val 45	Leu 30 Phe	15 Leu Ile	Ser Val
255 256 258 259 260 261 262 263 264 265	<21 <400 Met 1 Pro Met Arg	3> Ol 0> SI Ser Gly Tyr	RGANI EQUEI Ser Leu Val 35	PRT ISM: NCE: Cys Glu 20 Val	Homo 4 Asn 5 Lys	Phe Ala Met	Thr His Cys	His Phe Gly 40	Trp 25 Asn	10 Val Cys	Gly	Phe Val	Pro Val 45	Leu 30	15 Leu Ile	Ser Val
255 256 258 259 260 261 262 263 264 265 266	<21 <400 Met 1 Pro Met Arg	3> Ol 0> SI Ser Gly Tyr Thr 50	RGANI EQUEI Ser Leu Val 35 Glu	PRT ISM: NCE: Cys Glu 20 Val	Homo 4 Asn 5 Lys Ala Ser	Phe Ala Met Leu	Thr His Cys His 55	His Phe Gly 40 Ala	Trp 25 Asn Pro	10 Val Cys Met	Gly Ile Tyr	Phe Val Leu 60	Pro Val 45 Phe	Leu 30 Phe Leu	15 Leu Ile Cys	Ser Val Met
255 256 258 259 260 261 262 263 264 265 266	<21: <400 Met 1 Pro Met Arg	3> Ol 0> SI Ser Gly Tyr Thr 50	RGANI EQUEI Ser Leu Val 35 Glu	PRT ISM: NCE: Cys Glu 20 Val	Homo 4 Asn 5 Lys Ala Ser	Phe Ala Met Leu	Thr His Cys His 55	His Phe Gly 40 Ala	Trp 25 Asn Pro	10 Val Cys Met	Gly Ile Tyr	Phe Val Leu 60	Pro Val 45 Phe	Leu 30 Phe	15 Leu Ile Cys	Ser Val Met
255 256 258 259 260 261 262 263 264 265 266 267 268	<21: <400 Met 1 Pro Met Arg Leu 65	3> Ol 0> Si Ser Gly Tyr Thr 50	RGAN: EQUEI Ser Leu Val 35 Glu Ala	PRT ISM: NCE: Cys Glu 20 Val Arg Ile	Homo 4 Asn 5 Lys Ala Ser	Phe Ala Met Leu Leu 70	Thr His Cys His 55 Ala	His Phe Gly 40 Ala Leu	Trp 25 Asn Pro	10 Val Cys Met Thr	Gly Ile Tyr Ser 75	Phe Val Leu 60 Thr	Pro Val 45 Phe Met	Leu 30 Phe Leu Pro	15 Leu Ile Cys Lys	Ser Val Met Ile 80
255 256 258 259 260 261 262 263 264 265 266 267 268 269 270	<21: <400 Met 1 Pro Met Arg Leu 65 Leu	3> OI 0> SI Ser Gly Tyr Thr 50 Ala	RGAN: Ser Leu Val 35 Glu Ala	PRT ISM: NCE: Cys Glu 20 Val Arg Ile	Homo 4 Asn 5 Lys Ala Ser Asp Trp	Phe Ala Met Leu Leu 70 Phe	Thr His Cys His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Trp 25 Asn Pro Ser Arg	10 Val Cys Met Thr Glu 90	Gly Ile Tyr Ser 75 Ile	Phe Val Leu 60 Thr	Pro Val 45 Phe Met	Leu 30 Phe Leu Pro Glu	15 Leu Ile Cys Lys Ala 95	Ser Val Met Ile 80 Cys
255 256 258 259 260 261 262 263 264 265 266 267 268 269 270	<21: <400 Met 1 Pro Met Arg Leu 65 Leu	3> OI 0> SI Ser Gly Tyr Thr 50 Ala	RGAN: Ser Leu Val 35 Glu Ala	PRT ISM: NCE: Cys Glu 20 Val Arg Ile	Homo 4 Asn 5 Lys Ala Ser Asp Trp	Phe Ala Met Leu Leu 70 Phe	Thr His Cys His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Trp 25 Asn Pro Ser Arg	10 Val Cys Met Thr Glu 90	Gly Ile Tyr Ser 75 Ile	Phe Val Leu 60 Thr	Pro Val 45 Phe Met	Leu 30 Phe Leu Pro Glu	15 Leu Ile Cys Lys Ala 95	Ser Val Met Ile 80 Cys
255 256 258 259 260 261 262 263 264 265 266 267 268 269 270 271	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Leu	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala	EQUEI Ser Leu Val 35 Glu Ala Leu	PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe	Phe Ala Met Leu 70 Phe	Thr His Cys His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Trp 25 Asn Pro Ser Arg Ala 105	10 Val Cys Met Thr Glu 90 Leu	Gly Ile Tyr Ser 75 Ile Ser	Phe Val Leu 60 Thr Ser	Pro Val 45 Phe Met Ile	Leu 30 Phe Leu Pro Glu Glu 110	15 Leu Ile Cys Lys Ala 95 Ser	Ser Val Met Ile 80 Cys Thr
255 256 258 259 260 261 262 263 264 265 266 267 268 269 270 271	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Leu	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala	EQUEI Ser Leu Val 35 Glu Ala Leu	PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe	Phe Ala Met Leu 70 Phe	Thr His Cys His 55 Ala Asp	His Phe Gly 40 Ala Leu Ser	Trp 25 Asn Pro Ser Arg Ala 105	10 Val Cys Met Thr Glu 90 Leu	Gly Ile Tyr Ser 75 Ile Ser	Phe Val Leu 60 Thr Ser	Pro Val 45 Phe Met Ile	Leu 30 Phe Leu Pro Glu Glu	15 Leu Ile Cys Lys Ala 95 Ser	Ser Val Met Ile 80 Cys Thr
255 256 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Leu Ile	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala Thr	EQUEI Ser Leu Val 35 Glu Ala Leu Gln Leu 115	PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100 Ala	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe Met	Phe Ala Met Leu 70 Phe Phe	Thr His Cys His 55 Ala Asp Ile Phe	His Phe Gly 40 Ala Leu Ser His Asp	Trp 25 Asn Pro Ser Arg Ala 105 Arg	10 Val Cys Met Thr Glu 90 Leu	Gly Ile Tyr Ser 75 Ile Ser Val	Phe Val Leu 60 Thr Ser Ala	Pro Val 45 Phe Met Ile Ile Ile 125	Leu 30 Phe Leu Pro Glu Glu 110 Cys	15 Leu Ile Cys Lys Ala 95 Ser His	Ser Val Met Ile 80 Cys Thr
255 256 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Leu Ile	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala Thr	EQUEI Ser Leu Val 35 Glu Ala Leu Gln Leu 115	PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100 Ala	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe Met	Phe Ala Met Leu 70 Phe Phe	Thr His Cys His 55 Ala Asp Ile Phe	His Phe Gly 40 Ala Leu Ser His Asp	Trp 25 Asn Pro Ser Arg Ala 105 Arg	10 Val Cys Met Thr Glu 90 Leu	Gly Ile Tyr Ser 75 Ile Ser Val	Phe Val Leu 60 Thr Ser Ala Ala Thr	Pro Val 45 Phe Met Ile Ile Ile 125	Leu 30 Phe Leu Pro Glu Glu 110 Cys	15 Leu Ile Cys Lys Ala 95 Ser His	Ser Val Met Ile 80 Cys Thr
255 256 258 259 260 261 262 263 264 265 267 271 272 273 274 275 276	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Leu Ile Leu	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala Thr Leu Arg 130	EQUEI Ser Leu Val 35 Glu Ala Leu Gln Leu 115 His	PRT ISM: NCE: Cys Glu 20 Val Arg Ile Phe Met 100 Ala	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe Met	Phe Ala Met Leu 70 Phe Phe Ala Val	Thr His Cys His 55 Ala Asp Ile Phe Leu 135	His Phe Gly 40 Ala Leu Ser His Asp 120 Asn	Trp 25 Asn Pro Ser Arg Ala 105 Arg Asn	10 Val Cys Met Thr Glu 90 Leu Tyr	Gly Ile Tyr Ser 75 Ile Ser Val	Phe Val Leu 60 Thr Ser Ala Ala Thr 140	Pro Val 45 Phe Met Ile Ile 125 Ala	Leu 30 Phe Leu Pro Glu Glu 110 Cys Gln	15 Leu Ile Cys Lys Ala 95 Ser His Ile	Ser Val Met Ile 80 Cys Thr Pro Gly
255 256 258 259 260 261 262 263 264 265 267 271 272 273 274 275 276	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Leu Ile Leu	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala Thr Leu Arg 130	EQUEI Ser Leu Val 35 Glu Ala Leu Gln Leu 115 His	PRT ISM: NCE: Cys Glu 20 Val Arg Ile Phe Met 100 Ala	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe Met	Phe Ala Met Leu 70 Phe Ala Val Arg	Thr His Cys His 55 Ala Asp Ile Phe Leu 135	His Phe Gly 40 Ala Leu Ser His Asp 120 Asn	Trp 25 Asn Pro Ser Arg Ala 105 Arg Asn	10 Val Cys Met Thr Glu 90 Leu Tyr	Gly Ile Tyr Ser 75 Ile Ser Val Val	Phe Val Leu 60 Thr Ser Ala Ala Thr 140	Pro Val 45 Phe Met Ile Ile 125 Ala	Leu 30 Phe Leu Pro Glu Glu 110 Cys Gln	15 Leu Ile Cys Lys Ala 95 Ser His Ile	Ser Val Met Ile 80 Cys Thr Pro Gly Leu
255 256 258 259 260 261 262 263 264 265 267 271 272 273 274 275 276 277 278	<21: <400 Met 1 Pro Met Arg Leu 65 Leu Ile Leu Ile 145	3> OI 0> SI Ser Gly Tyr Thr 50 Ala Ala Thr Leu Arg 130 Val	EQUENT SET Leu Val 35 Glu Ala Leu Gln Leu 115 His Ala	PRT ISM: CYS Glu 20 Val Arg Ile Phe Met 100 Ala Ala	Homo 4 Asn 5 Lys Ala Ser Asp Trp 85 Phe Met Ala	Phe Ala Met Leu 70 Phe Ala Val Arg 150	Thr His Cys His 55 Ala Asp Ile Phe Leu 135 Gly	His Phe Gly 40 Ala Leu Ser His Asp 120 Asn Ser	Trp 25 Asn Pro Ser Arg Ala 105 Arg Asn Leu	10 Val Cys Met Thr Glu 90 Leu Tyr Thr	Gly Ile Tyr Ser 75 Ile Ser Val Val Phe 155	Phe Val Leu 60 Thr Ser Ala Ala Thr 140 Phe	Pro Val 45 Phe Met Ile Ile 125 Ala Pro	Leu 30 Phe Leu Pro Glu Glu 110 Cys Gln	15 Leu Ile Cys Lys Ala 95 Ser His Ile Pro	Ser Val Met Ile 80 Cys Thr Pro Gly Leu 160

RAW SEQUENCE LISTING ERROR SUMMARY DATENT APPLICATION: US/10/017,066A

DATE: 06/06/2002 TIME: 14:37:39

Input Set : D:\51158-20024.txt

Output Set: N:\CRF3\06062002\J017066A.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:41; N Pos. 6,12,15 Seq#:42; N Pos. 3,6,12,15 Seq#:43; N Pos. 12,15 Seq#:44; N Pos. 3,12,15 Seq#:45; N Pos. 3,9,18 Seq#:46; N Pos. 3,9 Seq#:47; N Pos. 6,9,21 Seq#:48; N Pos. 1,13,16 Seq#:49; N Pos. 1,7,10,16 Seq#:50; N Pos. 10,16,19